

ENERGY AND ENVIRONMENT CABINET

Department for Environmental Protection

Division of Water

**(Amended After Comments)**

401 KAR 8:100. Design, construction, and approval of facilities.

RELATES TO: KRS 151.634, 224.10-110, 224.60-100 [~~Chapter 224~~], **322.020(1), 322.340,** 40 C.F.R. 141.5, 141.110-111 [~~Part 141 (1995)~~]

STATUTORY AUTHORITY: KRS 224.10-100(28), 224.10-110, 40 C.F.R. 141.5, 141.110-111 [~~Part 141 (1995)~~], 42 U.S.C 300f - 300j-26 [~~42 U.S.C. A 300f, 300g, 300j~~]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-110**(2), (3), and (4) require**  
**[requires]** [~~directs~~] the cabinet to enforce administrative regulations promulgated [~~adopted~~] by the secretary for the regulation and control, **, including construction and operation,** of the purification of water for public and semipublic use. [~~The Safe Drinking Water Act, as amended by the Safe Drinking Water Act Amendments of 1986, provides for primary enforcement responsibility by states that have adopted regulations "no less stringent than the national primary drinking water regulations", as well as meeting other criteria stipulated by the Act. The Commonwealth of Kentucky has accepted and is currently exercising this primary enforcement responsibility.] This administrative regulation establishes [~~sets out~~] design plan requirements for the construction of new, **, modified,** and expanded facilities that deliver potable [~~pure~~] water for public or semipublic use and establishes requirements for submitting plans and specifications for [~~, as well as stipulating certain reporting requirements and requiring~~] modifications to existing facilities [~~for~~]~~

1 ~~certain line replacements, and feeding activated carbon~~. There is not a ~~[no]~~ federal regulation that  
2 deals with this subject matter; ~~[;]~~ therefore, this administrative regulation is not ~~[no]~~ more stringent  
3 than federal requirements. ~~[the federal regulation. The plans review process specified in this~~  
4 ~~administrative regulation allows plans to be reviewed and certain judgments to be made about~~  
5 ~~water systems to ensure that other state and federal requirements are being met.]~~

6 Section 1. Preliminary Engineering Report. ~~[Plans and Specifications:]~~ (1) A preliminary  
7 engineering report for a proposed new facility or a modification to an existing facility shall be  
8 prepared by a professional engineer and ~~[plans to be]~~ submitted to the cabinet.

9 (a) Except as established in paragraph (b) of this subsection, ~~[before]~~ a supplier or potential  
10 supplier of water shall submit the preliminary engineering report to the cabinet before entering  
11 ~~[may enter]~~ into a financial commitment for or initiating ~~[initiate]~~ construction of a new public  
12 water system~~[;]~~ or increasing ~~[increase]~~ the capacity of an existing public water system ~~[, he shall~~  
13 ~~submit the preliminary plans to the cabinet]~~.

14 (b) A preliminary engineering report shall not be required for

15 1. A semipublic treatment facility; or

16 2. Construction, extension, or improvement of a distribution system.

17 (c) The preliminary engineering report shall comply with 40 C.F.R. 141.5, Siting requirements.

18 (2) The preliminary engineering report shall contain the following information:

19 ~~[An applicant shall demonstrate to the cabinet evidence of efforts to avoid locating part or all of~~  
20 ~~the new or expanded facility at a site which is subject to a significant risk from earthquakes,~~  
21 ~~floods, fires or other disasters which could cause a breakdown of the public water system or a~~  
22 ~~portion thereof. Except for the intake structure, the facility shall be out of the 100-year flood~~  
23 ~~plain.~~

~~(2) Preliminary information. The following information shall be submitted to the cabinet by a professional engineer on behalf of the applicant along with the fee required by 401 KAR 8:050, Section 1(1):]~~

(a) The name ~~[names]~~ of the applicant and of the owner of the plant;

(b) A ~~[United States Geological Survey quadrangle]~~ map that ~~[which]~~ shows the location of the proposed facility;

(c) The proposed source of water and the quantity available, with the location of the intake or wellhead identified by latitude and longitude in degrees, minutes, and seconds;

(d) An analysis of the water from the proposed source for contaminants regulated pursuant to 401 KAR Chapter 8 ~~[, which covers all regulated parameters]~~, performed by a certified laboratory ~~[certified by the cabinet or its authorized agent];~~

(e) A detailed description of the proposed facility; ~~[, including size, flow rate through filters, settling basin size, and other general criteria; and]~~

(f) A detailed flow diagram of the proposed facility;

(g) Pilot study conclusions, if conducted; and

(h) An operation plan, including:

1. Anticipated load; [;]

2. Hours of operation; [;]

3. Area served; and

4. Number and certification of operational staff. [the name of the plant operator.]

(3) Preliminary engineering report ~~[plans]~~ approval.

(a) The preliminary engineering report shall be consistent with the requirements of the materials incorporated by reference in Section 9(a)-(c) of this administrative regulation.

(b) Upon receipt and review of the preliminary engineering report ~~[plans, as set forth in subsection (1) of this section]~~, the cabinet shall either approve the preliminary engineering report ~~[plans]~~ or return it ~~[them]~~ to the applicant ~~[supplier of water]~~ for revision.

1. Final plans shall not be submitted until the preliminary engineering report has been approved.

2. Approval of the preliminary engineering report shall not constitute final approval for construction. ~~[plans signifies approval only of the concept described in the preliminary plans and does not alter in any way the responsibility of the supplier of water to submit complete plans and specifications to the cabinet for final approval. The facility shall comply with the approved preliminary plans].~~

3. A proposed ~~[Any]~~ change in the preliminary engineering report ~~[final design from the concept set forth in the preliminary plans]~~ shall be submitted to the cabinet and approved prior to ~~[its]~~ incorporation in the final plans ~~[and specifications]~~.

~~[(4)Preliminary plans for semipublic treatment facilities or distribution systems. Preliminary plans are not required by the cabinet for semipublic treatment facilities or for distribution system construction, extensions or improvements.]~~

## Section 2. Final Plans and Specifications.

(1) ~~[(5)]~~ Final plans and specifications for the construction or modification of a water treatment plant or a distribution facility ~~[water treatment plants and distribution facilities]~~ shall be consistent with the materials incorporated by reference in Section 9(a)-(c) of this administrative regulation.

(a) If a preliminary engineering report is required pursuant to Section 1 of this administrative regulation, the final plans and specifications shall be consistent with the approved preliminary

1 engineering report.

2 (b)1. Plans for the construction or modification of a public water system [systems] shall be  
3 submitted by the water system or shall be accompanied by a letter from the water system  
4 confirming that **the water system** [it] has reviewed the plans, accepts the design, and has the  
5 capacity to [can] and shall [will] provide water service to the project.

6 2. A public water system that purchases [systems which purchase] water from another public  
7 water system[;] shall [also] submit a letter from the providing water system verifying the providing  
8 water system has the capacity and shall provide water service to the purchasing water system,  
9 including the proposed project [seller of water for all construction or modification projects] if the  
10 project will result in;

11 a. Demand for water exceeding eighty-five (85) percent of the purchasers current purchase  
12 contract; or [the project could result in a pressure reduction below thirty five (35) pounds per  
13 square inch in either the purchaser's or the seller's system; or,]

14 b. **Increased** [**Increase**] water [The project will result in a] demand [for water] by the  
15 purchaser by [in excess of a] 10,000 gallons or more [gallon] per day. [increase. This  
16 requirement may be waived by the cabinet if the purchaser shows that a reasonable attempt to  
17 obtain the letter has been made and the seller of water fails to provide the required letter. This  
18 provision shall not be the sole justification for rejection of the proposed project. The intent is to  
19 alert the seller and the purchaser that they are approaching their water purchase contract  
20 limitations and the state standards on minimum water pressure.]

21 (c)1. **Engineering** [(b)] plans and specifications [**for a** [all] **public water system**] shall be  
22 submitted to the cabinet, [systems] shall be prepared [and submitted to the cabinet] by a  
23 professional engineer licensed [registered] in Kentucky, and shall bear the engineer's seal,

signature, and date of signature.

~~[1. The seal of a professional engineer shall not be [is not] required on plans and specifications for a semipublic water supply.]~~

2. Prior to the construction or modification of a public or semipublic water system, the following documents and fees shall be submitted to the cabinet:

a. Three (3)

~~[supplies, or for public water supply projects in which the expenditure for the completed project does not exceed \$2,000. The construction or installation of any new facilities or works or the alteration or reconstruction of any existing facilities or works, in any public or semipublic water system, shall not begin until four (4)]~~ copies of the plans and specifications[, or **[any]** changes thereto; ~~[-together with]~~

b. For construction or modification of a distribution system, a complete Construction Application for Drinking Water Distribution form;

c. For the construction or modification of a treatment facility, a completed Construction Application for Drinking Water Treatment form;

d. For construction or modification of a semi-public facility, a completed Construction Application for Small **Groundwater and Semi-Public [Drinking Water]** Systems form;

e. A map that shows the location of the proposed facility;

f. Hydraulic calculations;

g. Design data and supporting documents necessary for ~~[as may be required for proper]~~ review of the plans and specifications;

h. Chemical and microbiological analyses of a new raw water source if the plans and specifications are for a treatment facility; and

1       i. The fee required by 401 KAR 8:050.

2       3. Construction or modification of a public or semipublic water system shall not begin until  
3 the plans and specifications have been approved by the cabinet in writing.~~[, have been submitted~~  
4 ~~to the cabinet and have been approved by the cabinet in writing. A complete package, including~~  
5 ~~plans, specifications, necessary fees, letters and other information, shall be submitted in the form~~  
6 ~~and content as may be specified by the cabinet, and shall be submitted at least thirty (30) days~~  
7 ~~prior to the date on which action is requested of the cabinet.]~~

8       4. The front page of the plans shall identify ~~[contain the name of]~~ the public water system  
9 ~~[supply], the owner of the public water system, the public water system's [its] [its ownership,]~~  
10 location by city and county, and ~~[the name of]~~ the professional engineer ~~[person]~~ preparing the  
11 plans.

12       (d) ~~[(e)]~~ The cabinet's review of plans and specifications shall be limited to sanitary features of  
13 design and other features of public health significance and shall not include a review ~~[an~~  
14 ~~examination]~~ of structural, mechanical, or electrical design ~~[or economic factors].~~

15       (e) ~~[(d)]~~ The plans shall be drawn to scale and shall be accompanied by ~~[proper]~~ specifications,  
16 so as to allow ~~[permit]~~ a comprehensive engineering review, and shall include ~~[, but not be limited~~  
17 ~~to,]~~ the following:

18       1. ~~[If treatment facilities are involved, chemical analyses of the proposed raw water source~~  
19 ~~or sources shall be performed and evaluated before final approval is granted;~~

20       2. ~~A plan]~~ Plan and sectional ~~[view]~~ views with all necessary dimensions; and ~~[of the water~~  
21 ~~treatment facilities;]~~

22       2. ~~[3.]~~ A piping diagram ~~[showing all appurtenances, including treatment facilities,]~~ in  
23 sufficient detail ~~[, as well as pertinent elevation data,]~~ to allow ~~[permit]~~ a hydraulic analysis of the

1 system. ~~and~~

2 4. ~~Specifications containing details on all treatment equipment, including catalog~~  
3 ~~identification of pumps, chlorinators, chemical feeders and related equipment~~

4 5. ~~A capacity to feed activated carbon shall be a part of the design for a new community or~~  
5 ~~nontransient noncommunity surface water system.~~

6 6. ~~A plan for a water line that would propose a section of line be laid within a 200 foot~~  
7 ~~radius of an underground storage tank as defined in KRS 224.60-100 or a petroleum storage tank~~  
8 ~~as defined in KRS 224.60-115, shall provide that all water lines within the 200 foot radius shall~~  
9 ~~be ductile iron pipe or other nonpermeable pipe approved by the cabinet. Any future replacement~~  
10 ~~of an existing water line within a 200 foot radius of a storage tank, whether or not plans are~~  
11 ~~submitted to the cabinet, shall also meet this requirement. The requirements of this subparagraph~~  
12 ~~may be waived, in writing, if the public water system shows to the satisfaction of the cabinet,~~  
13 ~~that the protection afforded by nonpermeable material is unnecessary due to hydrological,~~  
14 ~~geological, or other physical conditions at a particular site.]~~

15 (2) ~~(6)~~ Approval of final plans.

16 (a) Upon receipt and review of final plans and specifications, the cabinet shall either approve  
17 the final plans and specifications in writing or return them to the applicant for revision.

18 (b) If approved, one (1) set of approved plans and specifications shall ~~[stamped "approved"~~  
19 ~~will]~~ be returned to the engineer, ~~[or person who prepared them]~~ and one (1) set shall ~~[will]~~ be  
20 returned to the water system ~~[supply]~~ [supplier].

21 Section 3. ~~(7)~~ Construction.

22 (1)(a) During construction, a set of approved plans and specifications shall be available at the  
23 job site ~~[at all times]~~.



1        (b) Construction ~~[All work]~~ shall be performed in accordance with the approved plans and  
2 specifications.

3        ~~(2)[(b)]~~ If the cabinet's representative observes work being performed in a manner that ~~[which]~~  
4 does not conform to the approved plans and specifications, the cabinet shall notify the owner in  
5 writing.

6        (3) Unless construction begins within two (2) years from the date of **approval** ~~[approve]~~ of  
7 the final plans and specifications, the approval shall expire.

8        Section 4. ~~[(8)]~~ Final Approval of Facility.

9        (1) Upon completion of construction, a professional engineer ~~[the person who presented the~~  
10 ~~plans]~~ shall certify in writing that the project has been completed in accordance with the  
11 ~~["]approved["]~~ plans and specifications.

12        ~~[The public water supply shall operate the facility consistent with the approved plans and~~  
13 ~~specifications.]~~

14        (2) A ~~[Any]~~ proposed change to the approved plans affecting sanitary features of design ~~[plan]~~  
15 shall be submitted to the cabinet for approval in accordance with Section 2 of this administrative  
16 regulation.

17        (3) The public water **system** ~~[supply]~~ **[supplier]** shall not implement a ~~[any]~~ change to the  
18 approved ~~[plan]~~ plans without the prior written approval of the cabinet.

19        ~~[(9)Expiration of approval. Unless construction is begun within one (1) year from date of~~  
20 ~~approval, the approval shall expire. Extension of approval may be granted upon written request to~~  
21 ~~the cabinet.~~

22        ~~[(10)]~~ Section 6. Modifications and extension of service. The cabinet **shall not** ~~[may refuse to]~~  
23 approve a modification ~~[modifications]~~ of a public water system or an extension of service to one

(1) or more customers if the modification or extension of service is likely to ~~[may]~~ result in the water system's inability to supply consistent water service in compliance with 401 KAR 8:010 through 8:600. ~~[inclusive.~~

~~(11) All Plans and specifications submitted pursuant to this administrative regulation shall be consistent with]~~

Section 7. Treatment techniques. A public water system shall comply with the treatment technique requirements established in 40 C.F.R. 141.110 through 141.111, General requirements and Treatment techniques for acrylamide and epichlorohydrin.

Section 8. Variance. If plans and specifications deviate from the requirements of this administrative regulation, a written request for a variance shall be submitted with the plans and specifications or preliminary plans.

(1) The variance request shall include:

(a) A description of the reason for the variance request;

(b) The basis for the alternate plans or specifications, which shall be supported by current engineering practices; and

(c) Other information necessary to support the variance.

(2) A variance shall not be approved if it will not protect public health, water quality, and the environment.

Section 9. Material Incorporated by Reference.

(1) The following material is incorporated by reference: [~~"Recommended Standards for Water Works", "General Design Criteria for Surface and Groundwater Supplies", and "Water Policy Memorandum Number 84-02, General Guidelines for Conducting Stream Studies for Wastewater Discharges Proposed Within Five Miles Upstream from Public Water Supply~~

1 ~~Sources, or for the Location of Public Water Supply Intakes Within Five Miles Downstream~~  
2 ~~from Wastewater Discharges", which are incorporated by reference in Section 4 of this~~  
3 ~~administrative regulation.~~

4 ~~Section 2. Treatment Techniques for New and Existing Systems. (1) General requirements.~~  
5 ~~The requirements of this section constitute primary drinking water regulations. These~~  
6 ~~administrative regulations establish treatment techniques in lieu of maximum contaminant levels~~  
7 ~~for specified contaminants.~~

8 ~~(2) Treatment techniques for acrylamide and epichlorohydrin. Each public water system shall~~  
9 ~~certify annually in writing to the cabinet, using third party or manufacturer's certification, that~~  
10 ~~when acrylamide and epichlorohydrin are used in drinking water systems, the combination or~~  
11 ~~product of dose and monomer level does not exceed the levels specified as follows:~~

12 ~~Acrylamide = 0.05% dosed at one (1) ppm (or equivalent);~~

13 ~~Epichlorohydrin = 0.01% dosed at twenty (20) ppm (or equivalent).~~

14 ~~Certifications may rely on manufacturers or third parties, as approved by the cabinet.~~

15 ~~Section 3. All existing community and nontransient noncommunity water systems using~~  
16 ~~surface water as a source shall, by January 1, 1995, submit to the cabinet for approval plans to~~  
17 ~~establish the capacity to feed activated carbon to the treatment system. Within twelve (12)~~  
18 ~~months of the approval of the plans, the water system shall certify in writing to the cabinet that~~  
19 ~~the approved plan has been implemented.~~

20 ~~Section 4. The following documents are hereby incorporated by reference and are available~~  
21 ~~for public inspection and copying, subject to copyright laws, between 8 a.m. and 4:30 p.m.,~~  
22 ~~Monday through Friday, except for state holidays, at the Division of Water, 14 Reilly Road,~~  
23 ~~Frankfort Office Park, Frankfort, Kentucky 40601:~~

(4)] (a) Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and  
[&] Environmental Managers "Recommended Standards for Water Works," 2007; [~~1992,~~  
~~published by and available from Health Research Inc., Health Education Services Division, P.O.~~  
~~Box 7126, Albany, New York 12224.~~]

(b) [(2)] "General Design Criteria for Surface and Ground Water Supplies", April 2010; [~~July~~  
~~1990, which is published by and may be obtained from the Division of Water; and~~

(3)] (c) "Water Policy Memorandum Number 84-02, General Guidelines for Conducting  
Stream Studies for Wastewater Discharges Proposed within Five Miles Upstream from Public  
Water Supply Sources, or for the Location of Public Water Supply Intakes within Five Miles  
Downstream from Wastewater Discharges", 1984; [~~which is published by and may be obtained~~  
~~from the Division of Water.~~]

(d) "Construction Application for Drinking Water Distribution", DW-1, (8/2010) [(4/2010)];

(e) "Construction Application for Drinking Water Treatment", DW-2, (8/2010) [(4/2010)]; and

(f) "Construction Application for Small **Groundwater and Semi-Public [Drinking Water]**  
Systems", DW-3, (8/2010) [(4/2010)].

(2) This material may be inspected, copied, or obtained, subject to applicable copyright law, at  
the Division of Water, 200 Fair Oaks Lane, Frankfort, Kentucky, Monday through Friday, 8 a.m.  
to 4:30 p.m.

401 KAR 8:100 “Design, construction, and approval of facilities” (Amended After Comments)  
approved for promulgation:

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Date

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Leonard K. Peters, Secretary  
Energy and Environment Cabinet

## REGULATORY IMPACT ANALYSIS AND TIERING STATEMENT

Administrative Regulation #: 401 KAR 8:100 (AAC)

Contact Person: Sandy Gruzesky, Director

**(1) Provide a brief summary of:**

- (a) What this administrative regulation does:** This administrative regulation establishes procedures for public and semipublic water systems to submit preliminary and final construction plans to the cabinet for approval.
- (b) The necessity of this administrative regulation:** This administrative regulation allows the cabinet to approve or disapprove the plans and specifications for public and semipublic water systems to assure sanitary features of design.
- (c) How this administrative regulation conforms to the content of the authorizing statutes:** KRS 224.10-110 requires the cabinet to review and approve or disapprove plans for the construction or modification of water treatment plants and distribution systems
- (d) How this administrative regulation currently assists or will assist in the effective administration of the statutes:** This administrative regulation establishes procedures and guidelines to allow the cabinet to review, approve, or disapprove plans and specifications for proper construction and modification of public and semipublic water treatment plants and distribution systems.

**(2) If this is an amendment to an existing administrative regulation, provide a brief summary of:**

- (a) How the amendment will change this existing administrative regulation:** The amendments to this administrative regulation are to incorporate the most recent version of “Recommended Standards for Water Works” and update “General Design Criteria for Surface and Groundwater Supplies”. Other amendments are to update the requirements for professional engineer’s seal on public water supply projects to comply with statutory requirements, outline provisions for variance, incorporate application forms to be submitted with projects, and reduce the number of copies of plans required for submittal. An amendment was made after comments to strike an exemption for semi-public water systems. All engineering plans submitted to the cabinet must including a professional engineer’s stamp, in compliance with KRS 322.
- (b) The necessity of the amendment to this administrative regulation:** The amendments to this administrative regulation will allow the professional engineering community to use the most current design guidelines for the construction or expansion of water treatment plants and distribution systems.
- (c) How the amendment conforms to the content of the authorizing statutes:** KRS 224.10-110 requires the cabinet to review and approve or disapprove plans for the construction or modification of water treatment plants and distribution systems. The amendment will allow the cabinet to use the most current engineering design criteria in the review process.
- (d) How the amendment will assist in the effective administration of the statutes:** The adoption of updated design criteria will require the use of the most recent design criteria and allow the cabinet to more effectively oversee plans and specifications for the design and operation of water systems. The new applications will streamline the review process.

- (3) **List the type and number of individuals, businesses, organizations, or state and local governments affected by this administrative regulation:** This administrative regulation affects 480 public water systems, 52 semipublic water systems, 7 bottled water systems, and any proposed new public or semipublic water systems that may be created.
- (4) **Provide an analysis of how the entities identified in question (3) will be impacted by either the implementation of this administrative regulation, if new, or by the change, if it is an amendment, including:**
- (a) **List the actions that each of the regulated entities identified in question (3) will have to take to comply with this administrative regulation or amendment:** Public water systems will be required to use current engineering design criteria when designing new or expanded water treatment and distribution facilities and submitting the plans to the cabinet for approval. An application will need to be included with all plans submitted to the cabinet for approval. Plans for public water supplies that cost less than \$2,000 will now require the seal of a professional engineer, as required by KRS 322.
- (b) **In complying with this administrative regulation or amendment, how much will it cost each of the entities identified in question (3):** Compliance with the revised design criteria and the most current edition of “Recommended Standards for Water Works” will have a negligible impact on the cost of compliance with existing regulations. Requiring the seal of a professional engineer on public water supply projects that do not exceed \$ 2,000 may impact those project costs. However, since few projects cost less than \$ 2,000, compliance with this change will have an overall insignificant impact on the water system.
- (c) **As a result of compliance, what benefits will accrue to the entities identified in question (3):** Plans for the construction or expansion of water treatment or distribution systems will be able to use current engineering design criteria for those plans. Amendments to this regulation lower the number of copies required with submittal, thereby reducing printing and mailing costs. The new applications submitted with plans more efficiently communicates technical specifications needed in the review process thereby potentially resulting in reduced project costs.
- (5) **Provide an estimate of how much it will cost the administrative body to implement this administrative regulation:**
- (a) **Initially:** There are no additional costs to implement the amendments to this administrative regulation.
- (b) **On a continuing basis:** There are no additional costs to implement the amendments to this administrative regulation.
- (6) **What is the source of the funding to be used for the implementation and enforcement of this administrative regulation?** The funding for the implementation and enforcement for this administrative regulation is federal funds provided for the enforcement of the Safe Drinking Water Act.
- (7) **Provide an assessment of whether an increase in fees or funding will be necessary to implement this administrative regulation, if new, or by the change if it is an amendment:** No increase in fees or funding is anticipated as a result of this administrative regulation.

**(8) State whether or not this administrative regulation established any fees or directly or indirectly increased any fees:** This administrative regulation does not establish or increase fees.

**(9) TIERING: Is tiering applied? (Explain why or why not)**

Yes. This administrative regulation makes distinctions between public and semipublic water systems. Semipublic water systems are not required to submit a preliminary engineering report. Semipublic water systems are typically very small, less than twenty-five people, and the different requirement reduces the financial burden to these small systems. Semi-public water systems very rarely engage in engineering work, so the requirement to submit a preliminary engineering report would have created an undue economic burden.



## FISCAL NOTE ON STATE OR LOCAL GOVERNMENT

**Regulation #:** 401 KAR 8:100 (AAC)

**Contact Person:** Sandy Gruzesky, Director

- 1. Does this administrative regulation relate to any program, service, or requirements of a state or local government (including cities, counties, fire departments, or school districts)?**

Yes  X  No \_\_\_\_\_

**If yes, complete questions 2-4.**

- 2. What units, parts or divisions of state or local government (including cities, counties, fire departments, or school districts) will be impacted by this administrative regulation?**

This regulation applies to public and semipublic water systems. Public water systems are often owned by city governments or organized under county governments.

- 3. Identify each state or federal statute or federal regulation that requires or authorizes the action taken by the administrative regulation.** 40 C.F.R. 142.16 requires state primacy programs to have an enforceable requirement for determining disinfection and filtration technologies appropriate to treating water to comply with federal requirements. KRS 224.10-110 requires that plans and specifications for public and semipublic water systems be approved or disapproved by the cabinet.

- 4. Estimate the effect of this administrative regulation on the expenditures and revenues of a state or local government agency (including cities, counties, fire departments, or school districts) for the first full year the administrative regulation is to be in effect.**

**(a) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for the first year?** This regulation will not generate any revenue for local governments for the first year.

**(b) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for subsequent years?** This regulation will not generate any revenue for local governments in subsequent years.

**(c) How much will it cost to administer this program for the first year?** Additional costs are not anticipated to administer this program in the first year.

**(d) How much will it cost to administer this program for subsequent years?** Additional costs are not anticipated to administer this program in subsequent years.

## FEDERAL MANDATE ANALYSIS COMPARISON

Administrative Regulation#: 401 KAR 8:100 (AAC)

Contact Person: Sandy Gruzesky, Director

**1. Federal statute or regulation constituting the federal mandate.**

40 CFR 142.10(b)(5) under Primary Enforcement Responsibility states that a state has primary enforcement responsibility for public water systems in the state if there has been “the establishment and maintenance of an activity to assure that the design and construction of new or substantially modified public water systems will be capable of compliance with the State primary drinking water regulations”.

Special Primacy Requirements for maintaining primacy for enacting and enforcing the Safe Drinking Water Act provisions also apply. 40 C.F.R. 142.16(b), (g), (h), (i), (m), (n), (o) and (p) have language that relates to the approval of public water system design or construction activities that will affect compliance with the SDWA.

**2. State compliance standards.**

KRS 224.10-100, 224.10-110

**3. Minimum or uniform standards contained in the federal mandate.**

40 CFR Part 142.10(b)(5) establishes the requirement for an activity to assure the design and construction of new or substantially modified public water systems will be capable of compliance with the State primary drinking water regulations.

**4. Will this administrative regulation impose stricter requirements, or additional or different responsibilities or requirements than those required by the federal mandate?**

No. The requirements of 401 KAR 8:100 are not more stringent than 40 C.F.R. 142.16. The federal regulation gives general guidance and this regulation provides the specific requirements for submission and approval of plans. The requirements of 224.10-110 and 401 KAR 8:100 precede the development of 40 C.F.R. 142.16. However, the existence of these state requirements has allowed Kentucky to meet the primacy requirement outlined in the response to question 1.

**5. Justification for the imposition of the stricter standard, or additional or different responsibilities or requirements.**

The requirements of 401 KAR 8:100 are not more stringent than 40 C.F.R. 142.16. The federal regulation gives general guidance and this regulation provides the specific requirements for submission and approval of plans.

**DETAILED SUMMARY OF MATERIAL  
INCORPORATED BY REFERENCE  
IN 401 KAR 8:100**

The following materials are incorporated by reference in 401 KAR 8:100:

- I. This administrative regulation incorporates by reference the document “Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers Recommended Standards for Water Works”, 2007. This document is also known as the "Ten States' Standards". The amended edition incorporates the most recent engineering design criteria for the construction of water treatment plants and distribution systems. This document consists of one hundred forty-four (144) pages.
- II. This administrative regulation incorporates by reference “General Design Criteria for Surface and Ground Water Supplies”, April 2010. The amended edition defines water treatment plant rated design capacity and process redundancy, updates design criteria to meet current standards and adds new criteria to include water distribution systems, UV disinfection and membrane technologies. This document consists of eight (8) pages.
- III. This administrative regulation incorporates by reference the form, “Construction Application for Drinking Water Distribution, DW-1” (8/2010). This form is to be submitted with drinking water distribution projects and will provide the reviewer with information concerning the project in a standardized format. The information provided in the application includes the water system/customers served, site location, project description, and technical details to evaluate design criteria followed. The form was amended after comments to update the web site address. This document consists of four (4) pages.
- IV. This administrative regulation incorporates by reference the form, “Construction Application for Drinking Water Treatment, DW-2” (8/2010). This form is to be submitted with drinking water treatment projects and will provide the reviewer with information concerning the project in a standardized format. The information provided in the application includes the water system/customers served, site location, project description and technical details to evaluate design criteria followed. The form was amended after comments to update the web site address. This document consists of eight (8) pages.
- V. This administrative regulation incorporates by reference the form, “Construction Application for Small Drinking Water Systems”, DW-3 (8/2010). This form is to be submitted with semi-public drinking water projects and will provide the reviewer with information concerning the project in a standardized format. The information provided in the application includes the water system/customers served, site location, and technical details to evaluate design criteria followed. The form was amended after comment to clarify that engineering plans must be stamped by a professional engineer. If there is no engineering work being done, the system may simply submit plumbing drawings. The form was amended after comments to update the web site address. This document consists of two (2) pages.